

(12) INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(19) World Intellectual Property
Organization
International Bureau



(43) International Publication Date
4 August 2005 (04.08.2005)

PCT

(10) International Publication Number
WO 2005/071170 A1

(51) International Patent Classification⁷: E02F 3/407, 9/22, F16F 9/18

(21) International Application Number:
PCT/IB2005/000153

(22) International Filing Date: 21 January 2005 (21.01.2005)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:
2004/0537 23 January 2004 (23.01.2004) ZA

(71) Applicant and

(72) Inventor: WALLETT, Grant, Alan, David [ZA/ZA];
Renosterkop Farm, JU195, 1200 Nelspruit (ZA).

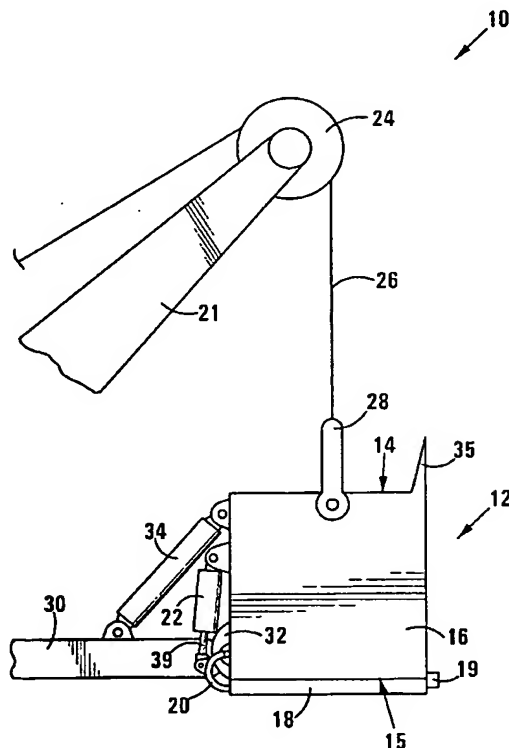
(74) Agent: SCHWEIZER, Adrian, Victor, van Reenen; 3rd
Floor, 23 Wellington Road, 2193 Parktown (ZA).

(81) Designated States (unless otherwise indicated, for every kind of national protection available): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.

(84) Designated States (unless otherwise indicated, for every kind of regional protection available): ARIPO (BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

[Continued on next page]

(54) Title: A BUCKET FOR A MECHANICAL SHOVEL



(57) Abstract: This invention relates to a bucket (12) for a mechanical shovel (10). The bucket has a hollow body (16) provided with an inlet (14) for receiving material into its interior and an outlet (15) for discharging material therefrom. A door (18) is secured to the body and is movable between a closed condition in which it closes the outlet, and an open condition in which it permits discharge under gravity of material from the bucket. A buffering device in the form of a working fluid-containing telescopically extensible and retractable piston-and-cylinder assembly (22) is operatively connected between the body and the door of the bucket for buffering movement of the door relative to the body. The assembly (22) includes a fluid flow control assembly (72) constructed and arranged to cause free fluid flow through the fluid flow assembly during opening of the door and to cause throttled fluid flow through the fluid flow assembly during closing of the door, such that movement of the door towards its closed condition is buffered.



Published:

— with international search report

For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PC[®] Gazette.